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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			EXAMINER MAI, LANNA	
			ART UNIT 3637	PAPER NUMBER

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/631,193

Applicant(s)

RANDALL ET AL.

Examiner

Lanna Mai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/27/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,9,10,13-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,9,10,13-20 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The amendment filed on 12/27/2005 has been entered. The indicated allowability of claims 1, 9, 10, 13-20, and 22 is withdrawn in view of the newly discovered reference(s) to Tillie, Dinkel, Chang, Kooij et al., Korn, and Hesser. Rejections based on the newly cited reference(s) follow.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 20, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tillie (US 4,015, 387).

Tillie shows in figs. 3-4 an insulated panel assembly (10) comprising a first skin (3), a second skin (3) parallel to the first skin, a first foam insulating body (2) sandwiched between the first and second skins forming a first panel unit. A first flexible connector (13, 14, 15 on the bottom side of the panel 10), a second flexible connector (13, 14, 15 on the left side of the panel 10) wherein the first and second flexible connectors comprises one of the first skin, second skin and first insulating body.

The first and second flexible connectors are inherently capable of snap fitting with the corresponding mating connectors. The first and second mating connectors recited in claim 1 are intended uses which are given very little patentable weight.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tillie (US 4,015, 387) in view of Chang (US 6,237,296).

Tillie, does not show the first panel unit comprises a first body and a second body such that the first body defines a first part of connector and the second body defines the second part of the connector. Chang teaches making the panel unit into a first body (20) and a second body (10) wherein the first body (20) defines a first part of connector (21) and the second body (10) defines the second part of the connector (21). Therefore, it would have been obvious to one skilled in the art to modified Tillie's panel assembly by making the first panel unit into a first body and a second body such that the first body defines a first part of connector and the second body defines the second part of the connector as taught by Chang to minimize deformation caused by humidity and dampness, and to cut cost.

Claims 1, 9, 20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyerson (US 6,314,701) in view of Dinkel (US 6,223,487).

Meyerson teaches an insulated panel assembly (figs. 1 and 2) comprising: a first panel unit (10) having a first skin (18), a second skin (19), a first insulating body (11), a first snap fit connector (20A, 20B) and a mating connector (20). The snap fit connector has flexible end portions, the ends having a slightly smaller dimension when completely attached with a mating connector (as opposed to the initial attachment phase; column 4, lines 58-63). Also taught is a

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second panel unit (Fig. 2) having a third skin (18), a fourth skin (19), a second insulating body (11), a mating connector (20), and a flexible snap-fit connector (20A, 20B). The first snap fit connector (20A, 20B) of the first panel unit (11) engages a corresponding mating connector (20) on an adjacent panel unit (11) in the first direction. Please note that limitations found in intended use/for" statements have not been given any weight in the claims.

Meyerson does not show a second snap fit connector on the first panel unit in a direction traverse to the first direction of the first snap fit connector. Dinkel teaches providing a panel unit (700) in fig. 1 with a first connector (704) to engage a first mating connector (end area 1302 of panel unit 1300) in a first direction, and a second connector (the end area labeled 706) to engage a second mating connector (end area 804 of panel unit 800) in a second direction. It would have been obvious to one of ordinary skill in the art to modify Meyerson's panel unit by forming a second connector in a second direction traverse to the first direction of the first connector to allow for angular position of the panel units to form walls.

Claim 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyerson (US 6,314,701) in view of Dinkel (US 6,223,487) and Chang (US 6,237,296).

Meyerson, modified by Dinkel, does not show the first panel unit comprises a first body and a second body such that the first body defines a first part of connector and the second body defines the second part of the connector. Chang teaches making the panel unit into a first body (20) and a second body (10) wherein the first body (20) defines a first part of connector (21) and the second body (10) defines the second part of the connector (21). Therefore, it would have been obvious to one skilled in the art to modified Meyerson's panel assembly, already modified by Dinkel, by making the first panel unit into a first body and a second body such that the first

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body defines a first part of connector and the second body defines the second part of the connector as taught by Chang to minimize deformation caused by humidity and dampness, and to cut cost.

Claims 13-16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinkel (US 6,223,487) ) in view of Meyerson (US 6,314,701) .

Dinkel shows in fig. 1 an insulated panel assembly having a first panel unit (700) includes a first connector (704) to engage a first mating connector (end area 1302) of the second panel unit (1300) in a vertical direction. The first panel unit (700) also having a second connector (the end area labeled 706) to engage a second mating connector (the end area 804) of a third panel unit (800) along a horizontal direction. Dinkel does not show the three panel units each having opposite skins sandwiching an insulating body, and connectors being flexible snap fit.

Meyerson teaches forming a panel unit with opposite skins (18, 19) and an insulating body (11) therebetween such that the first panel unit would include a first and second skins and a first insulating body, a second panel unit would include a third and fourth skins and a second insulating body, and a third panel unit would include a fifth and sixth skins and a third insulating body. Meyerson also teaches forming each panel unit with flexible snap fit connectors (20, 24, 25, 26) and mating connectors (21, 20A, 27, 28, 31) such that the snap fit connectors comprise at least one of the opposite skins and the insulating body. In figs. 1-3, Meyerson shows a first flexible snap fit connector (20, 24, 25, 26) of the first panel unit (10) comprises at least one of the first skin (18), the second skin (19) and the first insulating body (11), a mating connector (21, 20A, 27, 28, 31) comprises at least one of the skins (18, 19) and the insulating body (11).

It would have been obvious to one of ordinary skill in the art to modify Dinkel's panel assembly by making the panel units with opposite skins sandwiching an insulating body, and connectors being flexible snap fit, wherein connectors and mating connectors each comprise at least one of the opposite skins and the insulating body as taught by Meyerson to improve the structural integrity of the panels and the joints between adjacent panels.

Neither Dinkel nor Meyerson teaches forming a second panel unit with a mating connector at each end portion as recited in claim 16. However, as indicated in the specification of the instant application, the placement of a flexible snap fit connector or a mating connector on each panel unit is merely a design choice depending upon the particular configuration desired. Therefore, it would have been obvious to modify Dinkel's panel assembly, modified by Meyerson, by forming a first and a second flexible snap fit connectors on the first panel unit, a first and third mating connectors on the second panel unit, and a second mating connector on the third panel unit to achieve a particular wall configuration.

Claims 10, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinkel (US 6,223,487) ) in view of Meyerson (US 6,314,701) and Chang (US 6,237,296).

Dinkel, modified by Meyerson, does not show the first panel unit comprises a first body and a second body such that the first body defines a first part of connector and the second body defines the second part of the connector. Chang teaches making the panel unit into a first body (20) and a second body (10) wherein the first body (20) defines a first part of connector (21) and the second body (10) defines the second part of the connector (21). Therefore, it would have been obvious to one skilled in the art to modified Dinkel's panel assembly, already modified by Meyerson, by making the first panel unit into a first body and a second body such that the first

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body defines a first part of connector and the second body defines the second part of the connector as taught by Chang to minimize deformation caused by humidity and dampness, and to cut cost.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dinkel (US 6,223,487) ) in view of Meyerson (US 6,314,701) and Korn (US 6,948,287).

Dinkel shows in fig. 1 an insulated panel assembly having a first panel unit (700) includes a first connector (704) to engage a first mating connector (end area 1302) of the second panel unit (1300) in a vertical direction. The first panel unit (700) also having a second connector (the end area labeled 706) to engage a second mating connector (the end area 804) of a third panel unit (800) along a horizontal direction. Dinkel does not show the three panel units each having opposite skins sandwiching an insulating body, and connectors being flexible snap fit. In addition, Dinkel does not show the first and second panel units forming a seam which is covered by a curved flange supported by the first panel unit.

Meyerson teaches forming a panel unit with opposite skins (18, 19) and an insulating body (11) therebetween such that the first panel unit would include a first and second skins and a first insulating body, a second panel unit would include a third and fourth skins and a second insulating body, and a third panel unit would include a fifth and sixth skins and a third insulating body. Meyerson also teaches forming each panel unit with flexible snap fit connectors (20, 24, 25, 26) and mating connectors (21, 20A, 27, 28, 31) such that the snap fit connectors comprise at least one of the opposite skins and the insulating body. In figs. 1-3, Meyerson shows a first flexible snap fit connector (20, 24, 25, 26) of the first panel unit (10) comprises at least one of

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the first skin (18), the second skin (19) and the first insulating body (11), a mating connector (21, 20A, 27, 28, 31) comprises at least one of the skins (18, 19) and the insulating body (11).

Korn teaches the first (10) and second (8) panel units forming a seam which is covered by a curved flange (21 in fig. 9) supported by the first panel unit.

It would have been obvious to one of ordinary skill in the art to modify Dinkel's panel assembly by making the panel units with opposite skins sandwiching an insulating body, and flexible snap fit connectors and mating connectors such that the snap fit connectors and mating connectors each comprise at least one of the opposite skins and the insulating body as taught by Meyerson to improve the structural integrity of the panels and the joints between adjacent panels, and covering the seam formed by the first and second panel units with a curved flange as taught by Korn to seal against moisture.

Claims 1, 9, 13-16, 18, 20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazpule et al. (US 5,331,778) in view of Meyerson (US 6,314,701) .

Mazpule et al. show in fig. 5 a panel assembly having a first panel unit (24) includes a first connector (30, 31) to engage a first mating connector (30, 31) of the second panel unit (27) in a vertical direction. The first panel unit (24) also having a second connector (32, 33) to engage a second mating connector (32, 33) of a third panel unit (22) along a horizontal direction. Mazpule et al. do not show the three panel units each having opposite skins sandwiching an insulating body, and connectors being flexible snap fit.

Meyerson teaches forming a panel unit with opposite skins (18, 19) and an insulating body (11) therebetween such that the first panel unit would include a first and second skins and a first insulating body, a second panel unit would include a third and fourth skins and a second

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insulating body, and a third panel unit would include a fifth and sixth skins and a third insulating body. Meyerson also teaches forming each panel unit with flexible snap fit connectors (20, 24, 25, 26) and mating connectors (21, 20A, 27, 28, 31) such that the snap fit connectors comprise at least one of the opposite skins and the insulating body. In figs. 1-3, Meyerson shows a first flexible snap fit connector (20, 24, 25, 26) of the first panel unit (10) comprises at least one of the first skin (18), the second skin (19) and the first insulating body (11), a mating connector (21, 20A, 27, 28, 31) comprises at least one of the skins (18, 19) and the insulating body (11).

It would have been obvious to one of ordinary skill in the art to modify Mazpule et al.'s panel assembly by making the panel units with opposite skins sandwiching an insulating body, and flexible snap fit connectors and mating connectors such that the snap fit connectors and mating connectors each comprise at least one of the opposite skins and the insulating body as taught by Meyerson to improve the structural integrity of the panels and the joints between adjacent panels.

Neither Mazpule et al. nor Meyerson teaches forming a second panel unit with a mating connector at each end portion as recited in claim 16. However, as indicated in the specification of the instant application, the placement of a flexible snap fit connector or a mating connector on each panel unit is merely a design choice depending upon the particular configuration desired. Therefore, it would have been obvious to modify Mazpule et al.'s panel assembly, modified by Meyerson, by forming a first and a second flexible snap fit connectors on the first panel unit, a first and third mating connectors on the second panel unit, and a second mating connector on the third panel unit.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mazpule et al. (US 5,331,778) in view of Meyerson (US 6,314,701) and Kooji et al. (US 5,904,019).

Mazpule et al., modified by Meyerson, do not show the first panel unit comprises a first body and a second body such that the first body defines a first part of connector and the second body defines the second part of the connector. Kooji teaches making a building unit (2) into a first body (16, 4, 6) and a second body (14, 16, 6, 8) wherein the first body defines a first part of a snap fit connector (4 or 6) and the second body defines the second part of the snap fit connector (4 or 6). Therefore, it would have been obvious to one skilled in the art to modified Mazpule et al.'s panel assembly, already modified by Meyerson, by making the first panel unit into a first body and a second body such that the first body defines a first part of a snap fit connector and the second body defines the second part of the snap fit connector as taught by Kooji et al. to minimize deformation caused by humidity and dampness, and to cut cost.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mazpule et al. (US 5,331,778) in view of Meyerson (US 6,314,701) and Korn (US 6,948,287).

Mazpule et al. show in fig. 5 a panel assembly having a first panel unit (24) includes a first connector (30, 31) to engage a first mating connector (30, 31) of the second panel unit (27) in a vertical direction. The first panel unit (24) also having a second connector (32, 33) to engage a second mating connector (32, 33) of a third panel unit (22) along a horizontal direction. Mazpule et al. do not show the three panel units each having opposite skins sandwiching an insulating body, and flexible snap fit connectors and mating connectors.

Meyerson teaches forming a panel unit with opposite skins (18, 19) and an insulating body (11) therebetween such that the first panel unit would include a first and second skins and a

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first insulating body, a second panel unit would include a third and fourth skins and a second insulating body, and a third panel unit would include a fifth and sixth skins and a third insulating body. Meyerson also teaches forming each panel unit with flexible snap fit connectors (20, 24, 25, 26) and mating connectors (21, 20A, 27, 28, 31) such that the snap fit connectors comprise at least one of the opposite skins and the insulating body. In figs. 1-3, Meyerson shows a first flexible snap fit connector (20, 24, 25, 26) of the first panel unit (10) comprises at least one of the first skin (18), the second skin (19) and the first insulating body (11), a mating connector (21, 20A, 27, 28, 31) comprises at least one of the skins (18, 19) and the insulating body (11).

Korn teaches the first (10) and second (8) panel units forming a seam which is covered by a curved flange (21 in fig. 9) supported by the first panel unit.

It would have been obvious to one of ordinary skill in the art to modify Mazpule et al.'s panel assembly by making the panel units with opposite skins sandwiching an insulating body, and flexible snap fit connectors and mating connectors such that the snap fit connectors and mating connectors each comprise at least one of the opposite skins and the insulating body as taught by Meyerson to improve the structural integrity of the panels and the joints between adjacent panels, and covering the seam formed by the first and second panel units with a curved flange as taught by Korn to seal against moisture.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wolfowitz shows a building elements with connectors and mating connectors on different sides. Hesser shows an insulated panel having opposite skins and insulating body therebetween.

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Applicant's arguments with respect to claims 1, 9, 10, 13-20, 22 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to Lanna Mai at telephone number 571-272-6867.

Imai

2-1-06

**LANNA MAI**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3600**

A handwritten signature in black ink, appearing to read "Lanna Mai", written in a cursive style.